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VOLUME II AUGUST, 1930 NUMBER 2

CONTENTS

President's Column ..... R. E. WILLIS 282
Some Cactuses from Baja California ..... EDGAR BAXTER 283
That Shooting Cactus—An explanation from E. C. LEONARD of the Smithsonian 284
Review of the recent book, "Texas Cactus" ..... N. L. BRITTON 285
The Genus Opuntia, Vestitae and Clavarioides ..... DR. A. D. HOUGHTON 287, 288
A Heart of Cactus ..... ERNEST BRAUNTON 289
In Praise of the Desert Cactus ..... CHAS. C. RUPPENTHAL 290
Desert Gardens to Solve Our Water Problems ..... DR. JACOLYN MANNING 291, 293
Ariocarpus fissuratus ..... ANNA VOSS 293
Afield in Southern Arizona ..... KARL O. FRICK 294, 295
Review of Santa Barbara Book of "Cacti and Other Succulents" ..... JAMES WEST 296, 297
Metallic Mercury as a Simple Remedy for Borer ..... DR. A. D. HOUGHTON 298
Secretary's Notes ..... BOYD L. SLOANE 299

PRESIDENT'S COLUMN

It seems necessary to comment on a very unpleasant subject, namely, plant thieves.

There are several kinds of plant thieves. If it becomes necessary to say which is the most to be despised I would find it hard to choose. One is the person who steals plants to sell. This is purely mercenary and when caught should be prosecuted the same as though he had stolen your money. These persons generally precede their thieving expedition with an apparently friendly visit some time offering to buy certain plants, but in reality to enable them to locate the most desired plants so that they can get them more easily in the darkness of night or a quick trip when no one is home. Another, and by far the most common kind of thief, and one who would not under any circumstances steal your money, is the private collector, who visits your garden, is, in fact, your guest, and as such you respect him and dislike to feel that it is necessary to watch him. He takes small plants or cuttings, and perhaps soothes his conscience by the thought that you wouldn't object. This kind of thief should be and generally is pretty well advertised. Even though you don't see him take the plant you soon miss it and can generally guess who the thief was. Another kind of thief is the one who offers exchanges which never develop. He gets your plant by promising an early exchange of some plant you desire, and then does not make good his promise. These people are also pretty well advertised.

Because of my position in the society, I have many times received information from members asking advice on how to get their plants back or whether to prosecute the offenders. I am quite sure that if the offenders could realize that at least some of their thieving is known to the party from whom they stole, they would be loathe to repeat the offense.

My list consists of several dealers, a few prominent collectors, and a number of amateurs, or people who have small collections. I have halted public action on at least three occasions and have talked personally with the offenders. My reason for advising against action was my belief that they did not realize the seriousness of the offense. The disgrace of publicity proclaiming them as thieves or one sided traders would ruin them socially, or in the case of dealers, would certainly injure their business.

If, after the publication of this article, reports or accusations came to me and I feel that the facts can be proven, I will surely advise the accusor to make formal complaint and, if after proper investigation the accusation is sustained, the offender will be brought before the society at a public meeting at which time a vote will be taken to decide whether to remove him from the membership list or not. This action is provided for in our By-Laws. This would no doubt be followed by a criminal action of petty larceny, or other charges.

The greatest pleasure that most of us derive from our plants is showing them to admiring friends and plant lovers. It seems a shame that we cannot do this freely on account of a few who cannot be trusted.

SOME CACTUSES FROM SOUTHERN BAJA CALIFORNIA

By EDGAR BAXTER

A cactus fancier, in Baja California for the first time has the same feeling that Si Jones had when he saw the giraffe at the circus—"There ain't no such animals." The assortment of sizes, shapes, and spines is almost unbelievable—and the scientific names almost unpronounceable. The native Mexicans have given common names to those of the cacti that they use for food or medicine, or which are so obnoxiously present that attention is forced upon them. The names are far from scientific and apply generally to a genus rather than to any certain species.

There are some genera found over the whole range of the country. Others are limited very definitely to small areas. *Machaerocereus gummosus* is found state wide and has an ever-present companion in *Lemaireocereus thurberi.* These two, with some form of a *Cylindropuntia* resembling *Opuntia cholla,* a *Ferocactus* resembling *F. acanthodes,* and one of the five giant *Pachycerei* complete a description of any landscape within a 300 mile radius of Cape San Lucas.

A few scrubby trees and some spikes of ocatilla (*Fouquiera peninsularis*) fill in the places that might otherwise show as holes in the carpet of gray-green that completely covers the lower end of the peninsula. Occasionally a bright touch of color is presented by a patch of sand verbena, a white thistle-poppy, or a morning-glory.

Those persons who are interested in the "pincushion" and "hedgehog" types of cacti will have a series of pleasant moments as they look under a bush; in the crevice between rocks; at the base of a 25-foot Pachycereus; or around the roots of a tree and discover there one of the many *Neomammillarias, Bartschella schumanni, Cochemia poselgeri,* or *Echinocereus* in several species.

While looking for these little ones they may have to brush aside some spiny, dead looking branches that would be of great interest to other collectors. *Wilcoxia striata* looks like nothing but the dead branches of some climbing vine. Its stems are only a quarter of an inch in diameter and are supported by the branches of some other shrub. Below the ground it bears a small basketful of pale yellow tubers. If the search is being conducted on an elevated spot the "dead" branches may be the stems of *Pereskiopsis porteri;* although this cactus bears leaves, flowers, and fruit that make it very noticeable at certain seasons.

Pachycereus pringlei

The genus *Pachycereus* is represented at every point by some one of its four or five species. It resembles a smaller form of our Arizona giant cactus (*Carnegia gigantea*) and is the most noticeable genus over the whole area. In

the more southern part *Pachycereus pringlei* predominates. Along the Gulf coast and in the higher parts of the west coast is found *Pachycereus pecten-arboriginum*—the prettiest of the group but with the ugliest name. The name was given to recognize the fact that the native women used the spiny seed pods as combs for their hair. Near Magdalena Bay is the largest form of *Pachycereus*. It grows to 30 feet tall and has arms very much after the manner of the aforementioned Arizona giant. The fruit of all of this genus is used extensively for food and is known as "Cardon."

The plant which every one would want in his collection for its beauty of form is the "Garambullo," or *Lophocereus*. Three species are recognized, one of them not yet, but soon to be, described in botanical journals. *Lophocereus schotti* and *Lophocereus australis* are similar except in size. *L. schotti* is shorter and huskier than *L. australis,* which grows to a height of fifteen feet and has stems with a diameter of only four inches. The interesting and characteristic feature of the genus *Lophocereus* is the growth that the stems make when ready to bloom and fruit. This fruiting stem grows to twice the height of the regular stem and has thick clusters of spines two to four inches long instead of the five ¼-inch long spines found at each areole in the main part of the plant. The resemblance to a head of hair has been noticed by the Mexicans who sometimes call the plant "Cabeza de viejo." The fruit is used medicinally as an emetic.

The genus *Opuntia,* both cholla and tuna types, is represented by a few species, but by numerous plants. The most common is *Opuntia cholla.* One can be stuck by it in any part of the peninsula.

As wide spread, but not so common is *Opuntia burrageana.* It is called "Clavellina" by the Mexicans but is not *Opuntia clavellina* that grows further north in Baja California del Norte. *Opuntia burrageana* is a slender cylindropuntia with deep yellow spines. It has a small green and maroon colored flower that is followed by a heavily spined fruit. It grows associated with *Opuntia comonduensis.* This platyopuntia was so named because of its discovery near Comondu, but is found along the gulf coast to Cape San Lucas. Its stems are velvety to the touch. The new branches are splotched with a deep purple and are truly beautiful.

There is a wide open field for any botanist in Baja California. During the trip in which the cacti of this article were collected and photographed four entirely new species of Cactaceae were discovered. It is probable that a more thorough search would bring to light many more.

A word to the one who would travel in Mexico: Unless you care enough for beans, broiled meat, and tortillas, to eat them three times a day, you would better carry a food supply with you. Saturday nights bring one additional dish in "Menudos." It is a soup made of tripe and onions—and is well liked by the Mexicans. Personally—??

Prof. E. B. Babcock, head Professor of Genetics of the University of California, is at present travelling in Northern Africa and the Mediterranean region. He has sent me the addresses of several fine collections of Cactoid Euphorbia and cactus collections.

All the men in charge of these collections are anxious to cooperate in sending material for the improvement of our collections.

Efforts are being made to secure these authorities as contributors to our Journal. A. D. H.

Cactus That Shoots??

(From a Washington Paper)

Dr. E. C. Leonard, Smithsonian Institution scientist, tells of a thorn-shooting cactus, of Haiti. The slightest jar to the bush will cause the cactus pads to shoot forth in a parabola several sharp thorns. These travel with considerable force, and can penetrate leather at a distance of six feet.

Cactus Cranks Too Cranky

Dear Mr. Haselton:

That shooting cactus story which appeared in our local newspaper should not be taken too literally, nor any reading be made between the lines. Its author endeavored to give his reading public a breezy, interesting account of my recent trip to Haiti, and not an accurate scientific treatise which would stand the test of calipers. In the main, however, his account is true enough.

The cactus referred to is *Opuntia carabaca.* (Britton and Rose), common in the arid regions of Hispaniola and collected in the northern part of Venezuela and on Margarita and Trinidad. As to its adaptation for getting about, I hardly believe that "shooting" is the best word: "jumping" would be better. Their short spiney branches are attached very lightly, so lightly in fact that the slightest touch may send a handful of vicious thorny branchlets hurtling at its unfortunate victim. If the bush is struck, so as to give it a swinging motion, as bushes often are when an animal, including ourselves, passes through a thicket, a cluster of these thorns might be thrown an appreciable distance—thus the name "jumping" or "shooting" cactus. This is more likely to happen if the bushes are slender, as they often become in thickets. In the open they are unusually round and very compact. Their fiendish viciousness gives origin to many strange stories about the great distances they are able to shoot or jump. Their ability to penetrate leather can in no way be exaggerated. I believe it would take but little force to send them through armor plate!

E. C. LEONARD,
Smithsonian Institute, Washington, D. C.

NOTE: Somewhat similar characteristics apply to our local O. bigelovii.—R. E. W.

BOOK REVIEW

By N. L. BRITTON

TEXAS CACTI. A popular and Scientific Account of the Cacti Native of Texas. By Ellen D. Schulz and Robert Runyon. (Proceedings of the Texas Academy of Science, Volume XIV. 8vo. pp. 181. Illustrated. San Antonio, February, 1930.)

It is delightful to have the opportunity to review a book which should be in the library of every one interested in Cacti from any standpoint, for it is readable, without effort, from cover to cover and crowded with information. The introduction comprises chapters on DISTRIBUTION, in which Texas is held to have the most varied assortment of forms any where in the Southwest. GENERAL CHARACTERISTICS, where the principal features of the plant-body are discussed. GENERAL CLASSIFICATION, outlining the characteristics and relationship of the genera represented in Texas. EARLY HISTORY, referring to the fragmentary knowledge of Cacti in Europe prior to the 18th Century, twenty-two species only having been known to Linnaeus in 1753 and all of them classified by him in the one genus *Cactus*. GEOGRAPHICAL DISTRIBUTION AND RELATION TO SOIL AND CLIMATE, discussing the limited range of some species and the state-wide distribution of others, with a strikingly interesting photographic illustration of six species growing naturally within a few feet of each other on a clay dune. RELATION TO RAINFALL, where it is stated that on account of the diminution of precipitation from about fifty inches annually, in eastern Texas, by about one inch for every degree of longitude westward to El Paso, Cacti become progressively more numerous. A paragraph on GENERAL STRUCTURE discusses adaptations operating to reduce transpiration, LEAVES AND AREOLES are described, as also SPINES, and the uses of spines by primitive races as awls, needles and fish-hooks. FLOWERS are described in detail. The Chapter on FRUITS gives much information about the edible kinds. SPINELESS CACTUSES are characterized as "lethal mutations of the species common where they are found," with many interesting observations and conclusions relative to unarmed prickly pears. CACTUS CULTURE is given much space, and deservedly so, because the vastly increased demand for many kinds of these plants commercially is operating to reduce seriously their natural abundance and threatens actually to eliminate some species in parts of our desert regions; propagation by seeds or by cuttings has thus become very important, and detailed instructions are given. INSECT ENEMIES are described and discussed; record is made that over two hundred and fifty species of insects have been collected on Cacti in Texas, and that fifty of them are more or less destructive, many of these having been sent to Australia in the attempt to eliminate, or at least reduce, the prickly-pear infestation of parts of Australia. DISEASES, however, in Texas, are stated to destroy more Cacti than insects do, and three of these, caused by parasitic fungi, are described.

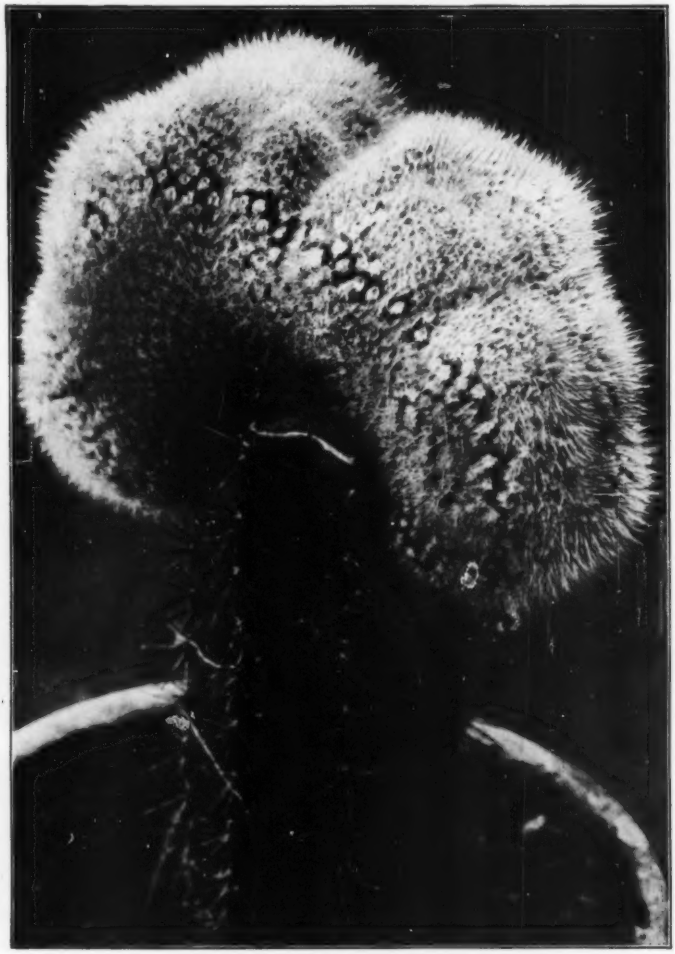
Most of the book is given to detailed descriptions of the Cacti native to Texas, with citation of geographic distribution, and many original and critical observations, many of the species illustrated by reproductions of excellent photographs; common names are given whenever they are used. The composition of this cactus-flora, under genera recognized, is as follows:

Opuntia	33	sepcies
Wilcoxia	1	"
Peniocereus	1	"
Acanthocereus	1	"
Echinocereus	21	"
Ariocarpus	1	"
Lophophora	1	"
Epithelantha	1	"
Hamatocactus	1	"
Ferocactus	3	"
Echinomastus	2	"
Echinocactus	1	"
Homolocephala	1	"
Ancistrocactus	2	"
Thelocactus	1	"
Neolloydia	1	"
Coryphantha	8	"
Neobesseya	3	"
Escobaria	4	"
Dolichothele	1	"
Neomammillaria	10	"
	98	"

A study of the cited geographical distribution of the ninety-eight species shows that many of them range southward, across the Rio Grande, into northern Mexico, and westward into New Mexico; a few reach into Arizona, and a few range eastward and northward.

There is a valuable bibliography of books and bulletins and of articles in magazines; members of the Cactus and Succulent Society of America will be pleased by the characterization of its JOURNAL as "the best current cactus magazine on the market." The concluding pages carry a glossary, a list of common and local names, and a complete index to the book.

This book can be purchased through the Society for $1.35 plus 10c postage. Mail check to G. A. Frick, 1800 Marengo Street, Los Angeles.



Grafted Crest
Borzicactus (cephalocereus) swartzii

We ask our many contributors to be lenient with us if their articles have not been published. Every contribution is appreciated. We would like more articles on cacti or our succulent friends will outnumber us. We expect to appoint "specialists" for each genus of plants and it will be their duty to see that articles are prepared representing their particular group. If you are a specialist and will assume an active part in this work, please communicate with Mrs. Lawrence, 376 No. Avenue 57, Los Angeles.

In answer to the many inquiries about Dr. A. D. Houghton's book we are glad to report that final galley proofs have been read and soon we expect a completion date from the publisher, McMillan Co.

THE GENUS OPUNTIA, SERIES VIII, VESTITAE

By ARTHUR D. HOUGHTON

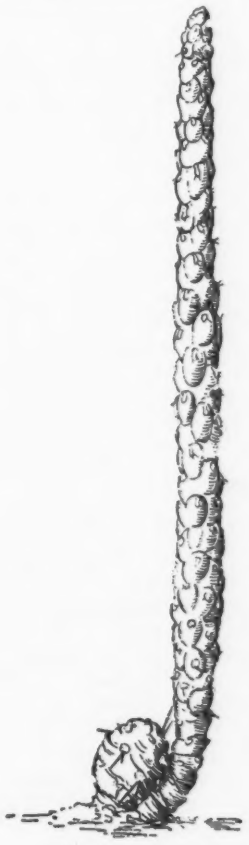
All the Opuntias that I have hitherto written about in this Journal have been Cylindropuntias with paper-sheathed spines. The spines in this series, *"Vestitae,"* have no paper envelopes. They are South American and they constitute a link between the North American Cylindropuntias and the naked-spined South American forms, leading easily to the subgenus *Tephrocactus*.

Opuntia vestita Salm-Dyck, and *O. shaferi* can be told from the other two species of this series because they have areoles with hairs and are not, or rarely, tuberculate. *O. verschaffeltii* and *O. hypsophila* have no hairs at their areoles and their joints are distinctly tuberculate. *O. vestita* with joints less than one-half inch thick, with spines one inch long or less, and mostly sterile fruits is easily told from *O. shaferi* that has joints up to one and one-quarter inches thick and spines up to two inches long with many-seeded fruits. *O. vestita* has much-branched, weak stems, and forms clumps about one foot across. The areoles are circular and conspicuous, being clothed with short white wool, spines and several long white hairs. There are about six spines in each cluster, acicular, white or brownish, up to one inch long. The leaves are minute and acute, making the young growth very pretty. They are absent in older growth. The flowers, ovary and fruit are deep red, the whole being less than one inch long.

This beautiful species is common on the dry hills near La Paz, Bolivia. In collection it is very rare. It is usually found grafted on *O. senilis* and when well grown is about as beautiful a cactus as is to be found anywhere. My own plant with many branches excites a great deal of comment. I intend grafting it on other stocks as *O. senilis* is rather puny stock under greenhouse conditions.

Opuntia shaferi, Britton and Rose. This little known species is closely related to *O. vestita,* but less cespitose (branching from base), taller and larger and having fertile fruit. It usually has 2-4 erect stems about one foot high; joints without angles one to one and one-half inches in diameter; areoles about one-quarter inch apart, circular, white-felted. Numerous whitish glochids occur at the upper margin of the areole and usually six brownish, needle-shaped spines associated with long white hairs. Flowers not described. The fruit is globular, without spines, three-quarters inch in diameter, but bearing numerous, large white-felted areoles furnished with glochids and hairs.

The writer wishes that some South American traveler, finding himself between Purmamaria and Tumbaya in the Argentine, where this species was collected by J. A. Shafer, would take the trouble to mail me a few seeds. So far as I know this plant is not available to American students.



Opuntia verschaffeltii
x 0.4 from Britton and Rose

Opuntia verschaffeltii, Cels, from La Paz, Bolivia, is an interesting species. In the wild, where it was collected by Dr. J. N. Rose on barren hills near La Paz, it grows in dense

clumps, much branched, with short, globular joints. It looked so similar to *O. pentlandii* that Dr. Rose mistook it for that species. When brought into greenhouse cultivation its habit changed, the plant throwing up long cylindric stems with peculiar tuberculation. In my collection I have *O. pentlandii* growing under glass and in full exposure to the San Fernando sun. Neither specimen has shown any tendency to this elongation so noticeable in all specimens of *O. verschaffeltii,* when grown under greenhouse conditions.

Opuntia hypsophila, Spegazzini. The flowers and fruit of this species being unknown, leaves it uncertain as to whether or not this plant belongs in the Series *Vestitae.* It was collected by Dr. Spegazzini in the Andes Mountains, in the Province of Salta, Argentine, at an altitude of 7,500-12,000 feet, and consequently is hardy. It is described by him as cespitose; joints globose to cylindric, one-half to one and one-quarter inches long; tubercles depressed; spines 3-5, subulate (awl-shaped), weak, spreading, white at first, brownish when older.

If this writing should meet the eye of a plant lover in South America he can make the hearts of some of us glad in North America, by exchanging a few seeds of his native flora for some of the beautiful things we have in the Northern half of the continent. Address this writer at San Fernando, California.

Series IX, Clavarioides

This Series contains but one species, according to Britton and Rose. I do not believe it is a good species, for the same reason that I cannot accept *Ferocactus hertrichii,* i. e., its description is based on an abnormal form. During all the years in which I have studied the Cactaceae, I have seen and possessed many specimens of *O. clavarioides.* All have been cristate forms.

Opuntia clavarioides Pfeiffer is described as low, much branched, grayish brown, 16 inches high or less, truncate or cristate at apex; joints not tuberculate, rather fragile, short-cylindric or clavate three-quarters inch in diameter; leaves minute, about one-tenth inch long, reddish, caducous (readily falling off); areoles minute, set closely, filled with wool and minute spines; spines 4-10, white, appressed (pressed close to the plant); flowers two and one -half to three inches long; sepals linear, pointed, reddish; petals light brown, narrowly spatulate, slightly crenate; ovary bearing minute leaves with wool and short bristles in their axils; filaments white, shorter than the petals; styles white, with seven stigma lobes; fruit ellipsoid, woolly, one-sixteenth inch long, one-seeded.

This species is doubtfully from Chile, also said to come from Mexico. It is very rare in collections and does not ship well, often arriving from a distance as a wet pulpy mass. Drs. Britton and Rose say, "the question has been raised in our own minds, if this is a true Opuntia."

It is almost always found in collections grafted on one of the Platyopuntias.

Usually when a cristate form has its top cut off it forms new branches which are all normal plants. I have tried this several times with this form, but in every instance the new shoots were cristates. A normal would be very desirable, so that it might be studied fully and properly classified. It might be, that upon another stock, satisfactory results might be obtained as in the case of *O. papyracantha,* the flowers and fruit of which were unknown to Britton and Rose. I grafted a joint of this on *O. subulata,* which almost immediately produced two flowers, which fruited and bore seeds, from which I raised seedlings identical with the parent.

In Germany *O. clavarioides* is called "neger hand," meaning nigger hand. And I might mention in closing that *O. clavarioides* thrives best in a hot, moist atmosphere.

If any subscripers have the first 12 copies of the Journal to be bound, send them to the Editor at once with $2.00. The index is nearing completion and we thank those who have sent their Journals and who are patiently waiting. The orders for the bound volumes will be filled at the same time.

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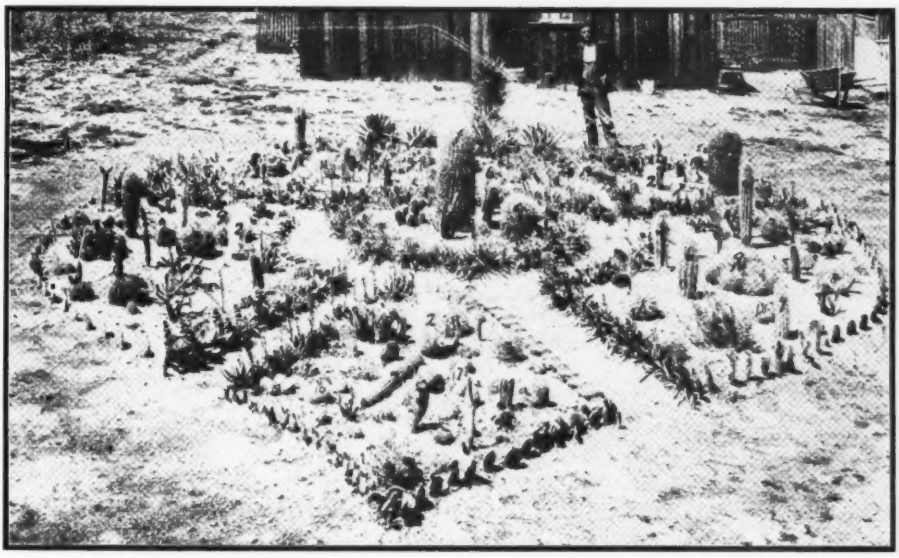

Bed of Succulents at Lyon & Cobbe, April 16, 1895. This bed contained 275 plants in 97 species of Cacti, bordered with Opuntias and divided by Dudleyas. Writer in the background.

A HEART OF CACTUS

By ERNEST BRAUNTON

In 1894 I laid out a heart-shaped bed for Cacti and other succulents in front of my office building at the Lyon and Cobbe nurseries, for I spent nearly all my time with this class of plants, doing all the work myself, rarely calling on one of the men for help and I had ten acres to look after, so the crew was busy elsewhere.

This bed was in five sections, as may be seen in the illustration, a central circle, a diamond-shaped central front, two wide wings and the biggest bed taking the rear third of the heart or pointed circle. In these beds were planted one or more of every species on hand; if only one was owned this was its resting place. Thus we had but one McDowellii. As we received new stock a fine sample would be placed in this collection. When this photo was taken, one year after the first planting, there were 94 species. Not more than 20 species were added. This was by no means all we had for we were overburdened with opuntias, in both sections of the genus, that were considered unfit to associate with the more aristocratic genera. We had only one plant, I remember, of *Leuchtenbergia principis* and a few others at that time exceedingly rare.

It is perhaps unfortunate that some of the plants in this photo should be marred with numbers made by a pen, but they were placed there 35 years ago and will not erase. Perhaps some readers may be able to make out some of the numbers and I find on back of photo a key to 23 species, which is here given. Names are of the old school.

The numbered plants in the illustration are: (1) Echinocactus LeContie; (2) Pilocereus senilis; (3) Echinocactus cylindraceus; (4) Cereus Pringlei; (5) Pilocereus Sargentianus; (6) Cereus giganteus; (7) Cereus eruca; (8) Cereus Mohaviensis; (9) Echinocactus polycephalus; (10) Echinocactus McDowellii (this was afterward determined as a Mammillaria);

(11) Echinocactus Wislizeni; (12) Echinocactus viridescens; (13) Opuntia leptocaulis (frutescens?); (14) Opuntia senilis; (15) Mammillaria halei; (16) Mammillaria phellosperma (tetrancistrus); (17) Cereus dasyacanthus; (18) Mammillaria Goodrichii; (19) Cereus polyacanthus; (20) Opuntia dulcis; (21) Cereus Engelmannii; (22) Opuntia tessellata; (2) Cereus chloranthus.

The many unnamed opuntias, mostly of the section *Cylindro-opuntia* were turned over for determination to Prof. J. W. Toumey, at the University of Arizona, and he once told me at our nursery, that he had about 70 supposed species to work on. Soon after he was called to the chair of forestry at Yale and I never saw him again. What became of the opuntias in the Arizona collection I do not know.

NOTE: These names were the ones current at the time of the collection and were chiefly from Forster's "Handbuch der Kakteen."—A. D. H.

TWO LOST SUBSCRIBERS

Since the first issue of the "Journal," a man in an isolated small town in California, has sent in 25c each month for the current number of the magazine, and each time the envelope contained a note of apology and a statement that as soon as his financial condition permitted, he would send the full subscription price for one year. The geographic location of this town, the condition in which the money was sent (a loose quarter in a poorly sealed envelope), and the nervous handwriting of the sender, aroused our suspicion, so we asked a traveling salesman who was a member of our Society to look up this person, and report back to us if he thought this collector warranted a free subscription. A few weeks later we received the following card from our member: "Saw Mr. ———. Found him a very sick man, broke and his love for cacti and succulents, of which he has very few, are all that is keeping him alive. Give him a life membership at my expense." Six weeks later a letter sent him from us was returned, marked "deceased."

An advertisement of a medicine for stomach troubles, made of cactus, was offered the "Journal" for a run of six months. Simultaneously a membership and subscription was taken by the head of this firm. We had an analysis made of the medicine and investigated the place where it was bottled, and found that absolutely no cactus was used in this cure-all concoction. We refused the ad, and by return mail we received a letter from the manager of the firm asking that we cancel his membership and subscription!

IN PRAISE OF THE DESERT GARDEN

CHAS. C. RUPPENTHAL, *Hollywood*

There is an added charm about a garden where a few Cacti are planted, whether it be a city back yard or the intimate enclosure on a country place, yet it is a surprise to note the infrequency with which we meet them. This is due no doubt to the difficulty which is supposed to attend their raising. With a few rocks and some sand you can have a bit of desert right in your own home.

I started mine with three desert varieties which I picked up intending to have just a small bed among other plants and shrubs which surround my home. It always seemed as though something were missing until I got this little desert started.

The small corner took on a new look, friends came and saw it and would say: "I have a plant in my yard which is a pest with its thorns, etc., if you want it come and dig it up," which I would do. Soon it looked as though I needed a little more space, so I decided to make my garden just a wee bit larger, until I had quite a little desert.

By this time the "Cactus Fever" had me good, I would visit friends and if they had one I didn't have I would beg or buy either a cutting or the whole plant. Soon I had to enlarge my garden again, winding it in and out among the trees and shrubs, making a very pleasing effect; and the friends who once said they wouldn't give them room on the place came and admired mine and begged cuttings and plants for a garden of their own.

Success with your cactus garden may well be considered an achievement not because of bringing them to flower, but because of having given them enough consideration to assure their presence. The difficulties of raising are a bugaboo. It is the lack of understanding of their likes and dislikes in regard to soil and moisture which often causes failure.

So many people are content to plant haphazardly, leaving practically everything to chance. Improper or insufficient drainage is one cause of trouble which should be allowed for at the time of making the bed. I have had very little difficulty with rot, etc.

The soil on my place is a black adobe which tenaciously retains moisture. In arranging my bed the first thing I did was to dig it up to the depth of one spade, mix with sand and ashes, then rake smooth and cover the entire bed with from four to six inches of pure sand and gravel.

Into this I then set my plants, so that while below the soil is always moist, the top layer dries off quickly, leaving the roots to find their way to the adobe getting moisture as required. I have been amply rewarded for my labor with a burst of yellow, red, pink and lavender flame out of the cold brown earth. Something mysteriously lovely happens to one's soul at the sight of such magic.

I now have around two hundred varieties and have had little or no trouble in growing them; and I think this spot of desert is one of the most beautiful spots of my garden. To possess ones own garden no matter how small is something we should dream of. Every one could well have a few varieties even if only the most common ones which are not hard to get. They will add that charm and quiet, serene atmosphere to the most humble back yard in the same lavish way that nature provides in the great open spaces of our western deserts.

CONSERVATION OF WATER

IN THE SOUTHWEST AND THE DESERT GARDEN

By JACOLYN MANNING, M.D.

"You must always recall that Pasadena was a *sheepwalk*" said the Horticultural Inspector, "and, *without water, this land returns to the desert in two years!*"

It was the fall of 1918. We had just purchased our Pasadena home and amazed at the aridity of the land which could be broken only with a pick, sought advice from authority.

Inspector White revealed to us the need for regular irrigation of our group of ten fruit and nut trees, and assured us one year of drought would result in loss of crop for the next three years should the trees survive the ordeal. He then gave the warning as quoted above.

We were at that time serviced by a private water company since purchased by the city. Water was expensive and a water famine came along, when we were all limited to a four-hour daily supply with pressure so low it was not possible to maintain exotic herbage without recourse to breaking the law and looting water at night.

Many times during that period we regarded with thoughtful eyes the extensive and lovely lawns maintained throughout Pasadena's residence district, while every issue of the local press entreated citizens to conserve the water supply.

Grass lawns are exotic in Pasadena. We are using the word exotic in its strict sense—i. e., "something not native, as a plant; belonging to another part of the world." But lawns are customary, and we became familiar with their unquenchable thirst in this arid climate by putting in a lawn of white clover and blue grass. *The man who drinks bootlegged jackass brandy is not thirstier than was that fifty foot square* of lawn.

Years of experimentation with old garden favorites followed—pansies, lilies of the valley, lilac trees, and many others dragged out a *wretched existence or succumbed to recurrent* aridity, while we began to smart at a sense of guilt in such wasteful use of precious water.

A partial solution of our problem followed an hour spent with Charles Francis Saunders in *his garden of native trees and shrubs trans*planted from the canons and mesas of this district. Mr. Saunders demonstrated to us the native flowering shrubs which would thrive in the home garden with only the irrigation of the winter rains. The fuchsia flowered gooseberry now drips color from our garden fence, the California lilac blooms from January until spring. Acacia and olive trees were planted, pomegranate and tamerisk, pepper tree and palm. For we had at last become aware the conservation of water, the one vital resource of life in the Southwest, must begin at home,—that is *in our own home.*

Water is the one fundamental and essential asset in this paradise of the Southwest in which we are privileged to live, and by which we are privileged to live. Our engineers are not searching for gold! They are searching for "miner's inches!"

Only when our technicians have perfected a process by which fresh, potable water may be drawn from the salt Pacific will Californians have an inexhaustible water supply.

Conserve water we must, as a community and as individuals. Our communal conserving has been checked and hindered by problems in construction of mountain reservoirs. As individuals in charge of the home garden, however, we can cut the use of water down fifty or more per cent by replacing ever thirsty exotics with equally lovely natives of arid lands.

Achieving Beauty by a Short Cut

If we wish by a short cut to achieve unique beauty in this arid land, let us study the art of arrangement, for it is an art—and plant *desert gardens. Let each garden be a separate creation. This is a delightful possibility.* We are not yet awake to the beauty that awaits development from this manifold and exquisite material. Most cactus gardens are just a crude jumble. I am doing a little experimentation with *color arrangement in the desert garden, and the* results are most heartening.

Members of the Cactus and Succulent Society of America know that a garden planted with cacti and other plants from the arid countries *is not only the most decorative garden, but is* also the greatest conservator of water of any

garden ever grown. The desert garden is also the only garden sure of survival in years of water famine.

As an astounding recent proof of this assertion that the desert garden is the only garden sure of survival through a period of water famine either natural or induced, I will quote a part of the statement of Captain Dudley Corlett, director of the California Botanic Garden in Mandeville Canyon. We spent Mayday, 1929, a little more than one year ago in the Mandeville Canyon garden. From the gates to the upper canyon the garden was one exquisite florescence of delicate pastel shades or bold beauty, many perfumed acres in extent. The terraced reaches of the newly set cacti were least conspicuous of the many lovely vistas.

"Alas,—the garden is virtually dead. Two hundred and fifty thousand dollars have been spent on the garden in three years, and now it lies a waste of weeds. A trickle of water and one man is all that is left to carry on. Fortunately the cactus garden is able to look after itself to a great degree. Cacti and other (arid) plants mentioned are Children of the Sun, and as such are the survivors of the fittest in the pioneer state. When the flower garden has vanished the cacti will send forth their blossoms brilliantly defiant. So from the ashes of the Botanic Garden a Phoenix may arise with greater glory after death has laid its beauty waste." (Conservation and the Botanic Garden. Dudley Corlett.)

Could there be a more heartbreaking story of the death of beauty, or more convincing proof that the desert garden is the true conservationist in the Southwest, for it will survive and increase in gorgeous beauty with no artificial water supply at all?

I wished, however, to give the members of the Cactus Society exact data re the relative expense of maintenance of the desert garden and the grass lawns customarly surrounding our homes in this land of little rain. I applied where a perfect balance between nature and artifice is scientifically adjusted with the most glorious results, at the famous Huntington Gardens. Mr. William Hertrich, the superintendent, stated the laws at Huntington are watered three times per week; the gardens of cacti once or at the most, twice per month.

We are aware of the activities of a small group of persons who frown on the idea that cacti lovers should be allowed to have desert gardens. It seems incredible, but I recently was present and heard the sentiment "That all Cactus should remain in the desert" applauded by a small group of persons who I thought must be laboring under some hysterical excitement.

People in general, even here in the Southwest, are unaware there are thousands of varieties of cacti already discovered, described, listed and written about, while collectors in the various parts of Mexico, and Central America, the West Indies and all the countries of South America, as they penetrate more remote areas and higher altitudes, are discovering new members of this vast family, more beautiful, more useful than the much sought orchids, and with qualities which make their possession desirable and possible in any home. Marvelous desert gardens can be arranged without the use of one local desert plant.

The first cactus we owned, and the foundation of our garden, which determined our starting a collection of the columnar (or giant) *cereus,* was given us by a neighbor ten years ago. It was a one-foot stem from her giant *cereus peruviana.* Placed in the arid 'dobe of our garden it grew ten feet tall. Many stems from this plant have been exchanged for other varieties. *Peruvianus* was taken to European gardens 400 years ago; it has been loved and cultivated for so long its original habitat is not exactly known, but may yet be re-discovered in central South America. It is a night blooming cereus which never demands extra water, for it remains through any drougth a standing reservoir of water. I have now acquired 36 specimens of giant or columnar cacti, of which only one, the *Suhuaro,* is native in the United States.

The second cactus of our collection was also brought in by a neighbor almost ten years ago, who assured us it was a native of Mount San Jacinto. It proved to be that old standby with fragrant rose colored trumpets and a thousand children, *Echinopsis multiplex,* whose native home is Southern Brazil.

The third cactus we owned, the fragrant and very beautiful *Nyctocereus serpentinus,* a night bloomer, was a gift cutting from a plant generations old on a Pasadena pioneer rancho. The snake cactus as it is commonly called has been loved and cutlivated in its home in Mexico for so many hundred years its exact origin is also lost. Divisions and cuttings from these widely varying cacti have been numerous and almost every one of them represents a friendly exchange.

Fortunately or unfortunately for our local deserts their plant life has had the most spectacular exploitation in the past five years of a nature to make it a fashionable stunt to loot the

desert, and enormously to increase the demand for denizens of the Mojave, especially the so-long-despised-but now-fashionable *cholla* and *Joshua tree,* in the great markets of the world. This obnoxious fad will run its course in the world of vulgar fashion along with the baby chick, baby duckling and baby rabbit Easter curse.

Some good may come out of it, for cacti have great powers of resistance. Aside from burning cactus with a live flame they are difficult to kill. Through untold milleniums this family of plants has adapted its living to the most adverse conditions. They will withstand much neglect and continue to exist. Cacti carry on!

Verily, in the aridity of the Southern California summer cacti will grow and paint the garden with lovely color. The despised *cholla* will decorate the sunny garden wall as it sparkles in sunlight or softens to pastel color in shadow. With thoughtful arrangement your desert garden will steadily advance in unique beauty. The garden will not deteriorate nor need expensive care when you are journeying. Your water bills will steadily decrease as your desert garden extends its borders. You will have acquired not only harmonious native beauty, but the happy knowledge that you, a citizen, have at last discovered a joyous method for truly conserving the vital precious water supply of the Southwest.
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Ariocarpus fissuratus

By ANNA VOSS, Cleveland, Ohio

This genus long passed under the name of *Anhalonium,* but it was found that *Ariocarpus* had priority and hence was taken up; the genus is usually considered as most closely related to *Neomamillaria,* under which genus two of the species have been placed. Engelmann, who was greatly puzzled over the group, first considered it the same as *Mammillaria,* then as a subgenus of *Mammillaria,* and later as a distinct genus. In its small oblong, naked fruit and straight embryo, it suggests a *Neomammillaria,* but in its tubercles, areoles, seeds, and absence of spines it is very unlike any of the species of that genus.

Ariocarpus fissuratus is a small curious looking cactus, the common name, Living Rock, alluding to the natural color and general appearance of the plant, which is a symmetrical rosette, more as though chiseled in stone by some skilled mechanic, than the result of Nature's handiwork. Its native habitat is in hot and barren tablelands of Northern Mexico and Southern Texas, near the junction of the Pecos and Rio Grande River, where rain seldom falls. It is difficult to find, unless in flower, due to the natural masquerade of the plant, which closely resembles the rocks between which it grows, scarcely appearing above the ground. Flowers grow from the middle of the rosette, pushing their way through a woolly center and are a dainty rosy purple, about one inch in diameter and remaining open for 3 or 4 days in succession. Flowering season is from August to October. Tubercles are warty, more or less three angled, grayish green in color, imbricated, ovate, with a woolly areole on the upper side near the tip, seeds are black.

This particular Cactus is easily grown, and should be in every amateur's collection, most dealers have them on sale, and at a price within reach of the most humble plant enthusiast.

For potting use some good loam mixed with one-fourth sand and a equal amount of old plaster taken from the walls of an old demolished building or if this is not available, buy some slaked lime and add about one-half ounce of this to the above mixture. Use a pot just a very little larger than the plant itself, put in plenty of drainage at the bottom, press soil firmly around it, give water sparingly at first, and if you have received the plant in good condition, it will soon fill the pot with roots, and all danger of loss is past, after this it will stand more liberal watering especially during the summer months, for two or three months during the winter water can be withheld entirely.

The Editor reserves the right to accept or refuse advertising

A typical desert scene in early spring.

A DAY AFIELD IN SOUTHERN ARIZONA

By KARL O. FRICK

A recent trip taken to the Santa Catalina Mountains in Southern Arizona, by my father and me, was for the purpose of making a survey of the Cactus growing in this range of mountains rather than the plants we might collect.

We set out from Tucson on the Oracle road, which runs over a flat mesa, covered with creosote bushes and clumps of *Opuntia,* many of which we stopped to inspect; those of the *Cylindropuntia* we saw were *O. fulgida* Eng., *O. mammillata* Schott., *O. spinosior,* Eng., *O. versicolor* End., and *O. bigelovii* Eng., the *Platyopuntias* were not so plentiful and composed of the following, *O. arizonica* Griff., *O. engelmannii* Salm., and *O. blakeana* Rose. *Echinocereus engelmannii* Eng., were everywhere and just coming into flower, also *Carnegia gigantea* Br. & R., was with us most of the day, and at times we passed through forests of them so tall and growing so close together, it was a sight well worth going many miles to see, and we now

understood why our dear friend Dr. R. Pullein traveled from far off South Australia to see this spot and enjoy what was before us.

A short distance from the village of Oracle, and considerably higher up the mountain than the mesa, we saw many find specimens of *Peniocereus greggii* Berger., *Coryphantha aggregata* Eng., and *O. arbuscula,* the latter growing so thick at American Flag Springs, that we were unable to penetrate the acres of them in searching for cristates, and had to be satisfied with hunting around the edges, without success, as the presence of many snakes gave our eyes little time for cristates. However, we did find a nice plant of *Neomammillaria microcarpa* Eng., just starting to crest. *Ferocactus wislizenii* Eng., was everywhere to be seen, and we saw some exceptional specimens, and took a picture of a very large one weighing about 800 pounds with a beautiful fan shaped crest on one of the branches.

From here we continued to work up the mountain to the Kellogg Ranch, about 4500 feet elevation, where *Echinocereus fendleri* Eng. was plentiful, and stopping long enough to let our motor cool, we walked around among them, and saw some large, interesting clusters. We did not tarry long here and soon pulled out for the old deserted cabin built and occupied by my father for two years in 1900, 1901 while prospecting this district for mineral claims. Father's reaction at seeing the old adobe was not what I had expected, so we walked about a mile from this point toward the top of Marble Peak, which was the vanishing line for Cactus, about the old cabin we found *O. laevis, O. toumeyi* Rose, *O. chlorotica;* also *Neomammillaria macdougalii* Rose, and one little white spined *Neomammillaria* we have been unable to identify. Since it was late by this time we decided to go to the nearest water, and camp for the night; and the following day we started for the rainbow country, where we received many thrills, but that is another story for a later issue of the Journal.

EDITOR'S NOTE: Easily to be seen that the younger generation of Fricks will carry on.—M. N. L.

In the February number there appeared an item concerning a boy in Los Angeles who housed his collection in a discarded sedan body. This was read by a subscriber in New Orleans, who writes informing us that his collection of succulents has been kept in an abandoned street car for over ten years and to prove his statement, sends in a photograph of what appears to be a good looking hot house, and in his collection is a worth-while number of rare plants.

A Garden to Meet the Size of Our Membership

July 25, 1930.

The Cactus and Succulent Society of America:

Some time ago I was appointed on a committee to investigate a certain piece of land which was offered to our club by a real estate man and on investigation of this proposition we found it was not what was wanted. For the past year I have been looking into pieces of land throughout the desert regions hoping to find something which would be of interest to the Cactus Society.

I have found 640 acres of land just one-half mile from the highway in the Devil's Garden region which is now pretty well covered with *Ferocactus acanthodes, Opuntia bigelovii,* and some other varieties. This is a short distance from an oil well that was drilled some time ago and as far as I unedrstand they found no oil but a limited amount of water. The party who owns the land bought it from the Southern Pacific Railway Co. for ten dollars an acre about ten years ago and is willing to sell it to the Society for eight dollars an acre, reserving the oil rights for himself for a reasonable length of time. This proposition seems so good to me that I am submitting it to the Cactus Society for consideration. I believe a group of cactus enthusiasts could be gathered together and take over the entire 640 acres of land.

Very truly yours,

W. LEE CHAMBERS.

EDITOR'S NOTES

It is encouraging to note that the second year of the Journal is assured. Under the business management of Mr. Sloane we are bound to progress so long as we co-operate. Even though the financial situation has been critical, we are glad to report that almost 100% of our subscribers have renewed and with such support and the addition of our many new friends the future is encouraging. If each of our subscribers would get but one new subscription we could enlarge our Journal immediately. In the next issue we will publish the names of those who obtain new subscribers.

We are especially indebted to our enthusiastic Mrs. Lawrence who is assisting the Editor (in fact, she is doing most of the work!). Soon, we hope to report an Editorial Office where the guilty, or modest, compilers of the Journal may be found at least one evening each week. We might make these evenings an open forum where we can meet the many friends of the Journal.

I enclose herewith $ for one year's dues in the Society and one year's subscription to the *Journal of the Cactus and Succulent Society of America.* Subscription price without membership, $3.00.

Address.....

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Book Review

By JAMES WEST

CACTI AND OTHER SUCCULENTS. An Annotated List of Plants Cultivated in the Santa Barbara Region.

Compiled and reviewed by Ralph Hofmann, E. O. Orpet, Eric Walther and James West. Edited by Pearl Chase.

Published by the Garden Tours Committee of the Plans and Planting Branch Community Arts Association, Santa Barbara, 1930, 107 pp. Ill. Price $1.00.

This book had its inception as a purely local enterprise of public-spirited and plant-conscious Santa Barbara, being the first of a projected series of volumes dealing in turn with the various classes of ornamental plants in cultivation in that favored region.

However, its usefulness promises to be more than merely local, for this is the first time that a reasonably complete list of the cultivated Cacti and other Succulents as a horticultural group has been assembled in a single handy volume. There have indeed been such compilations as Berger's Hortus Mortolensis, which included a great many species of these plants, but they were not separated from the many other woody and herbaceous subjects cultivated at La Mortola. We have also handbooks devoted to single families or genera, many of them in foreign languages or otherwise not easily accessible. But a list such as the present was hitherto nowhere available, and was felt as a want especially by those to whom the Cacti and Succulents appeal as a distinct group of cultivated ornamentals apart from their botanical affiliations.

Though the species included are limited to those known to be in cultivation in the neighborhood of Santa Barbara, the list is large and comprehensive enough to prove fairly representative for the Pacific Coast, and probably also for most other regions where Succulents are cultivated. The book lists 10 families, 125 genera and 943 species, of which 66 genera and 384 species belong to the Cactaceae.

The volume was not designed to be a botanical handbook, so that the reader must not expect to be able surely to identify any unknown species by its help. Being intended primarily for the amateur, the horticulturist and the landscape gardener, the short descriptive notes are purposely kept popular rather than scientific, using a minimum of technical terms (a glossary of which is provided), and botanical keys have been dispensed with, an omission which, if regretted by some, may possibly be welcomed with relief by those others who view a botanical key with alarm.

However, even the botanist will find it a very useful reference book, as author's names have been given in every case, and carefully verified, as well as the more important synonyms. In the one case of Mesembrianthemum the new generic names are given as synonyms instead of vice versa, on account of the state of flux in which the Mesembrieae exist at present, but the synonymy has been brought as far up to date as possible, even the newest genus Lampranthus being included.

The amount of research work involved in the vertification of names, etc., is more laborious than the average non-botanist would imagine, and was mainly responsible for the depeated delays in publiction. Another source of delay was the proof-reading, which was done as carefully as possible, resulting in a book almost free from typographical errors.

The arrangement is by families in alphabetical order, except that the Cactaceae are given precedence; under the family the genera and species are listed, also in alphabetical order. Each genus and species is shortly described by notes on chief characteristics and habitat. A greater uniformity in the descriptions might have been desirable, but under the circumstances of repeated revision by many geographically scattered collaborators was difficulty of attainment.

Preceding the list of species is an introduction by Ralph Hofmann of the Museum of Natural History in Santa Barbara, a chapter on Landscape value of Succulents by Ralph Stevens, Landscape Architect, and Hints on the care of Succulents by E. O. Orpet, Horticulturist and former Superintendent of Parks of Santa Barbara.

The appended bibliography will be welcomed by many. Something of the kind has been for long a desideratum with all amateurs desirous of increasing their knowledge. Among the queries addressed to editors and other authorities, those on the subject of available literature probably exceed all others in number. Henceforth these harassed persons will be able to refer to the present volume. Seventy-one titles are listed, including reference works, monographs and other books and periodicals in many languages,

ranging in date from 1795 to 1930. A short note on the scope of each is appended.

As one of those who had a small share in the making of this little volume, this reviewer cannot close without mentioning that the chief credit for any success belongs before all others to the energetic originator and Director-in-chief of the enterprise, Miss Pearl Chase, without whose efficiency in management and unfailing good humor through all manner of trials and tribulations, the devoted labors of the compilers and reviewers would have gone for nothing.

The Cactus and Succulent House was recently dedicated at the Garfield Park Conservatory in Chicago, Ill. Chief Florist August Koch is in charge; the house is destined to contain one of the most imposing collections of Cacti and Succulents in the middle west, and should be one of the most popular houses at the Conservatory. The Hearst Newsreel Company was at the opening and made several hundred feet of films as a live news feature to the horticultural world. The rockery which covers about 6000 square feet is of special significance on account of the great interest that has been shown in Cacti during the past few years, and will offer a wonderful opportunity for students and the public to study these plants, which number over 3200. Doors are open from 8 A. M. to 10 P. M. Admission is free.

TRICHODIADEMA

JAMES WEST, San Rafael

This species is one of the most charming and attractive among the shrubby Mesembrianthemums, which, as a class, however brilliant in flower, are not particularly distinguished for refinement of habit. But here we have a plant as neat and delicate as anyone could wish, not out of place in the dwarfest of gardens.

As in all the genus *Trichodiadema* (Gr. *trix*= hair, *diadema*=diadem or crown), the leaves bear a bundle of hairs at the tip. In our species the leaves are so closely crowded on the stems, exposing to view the hair-crowned tips, that the plant might well be mistaken for a Mammillaria with long slender tubercles and hair-liks spines, such as a species of *Dolichothele*. At flowering time the plant is almost covered with the attractive flowers of a very pure shade of reddish-violet, centered by the pinkish staminodia and white stamens. This species may easily be confused with its nearest relative, *T. stellatum* (Mill.) N. E. Br.; *T. densum* has shorter stems, larger and greener leaves, longer pedicels, calyx more decidedly conical and larger flowers. It is not quite certain whether the plant in our photograph, which comes from abroad, is in cultivation here, and whether the plant grown with us under the name *M. densum* may not be *T. stellatum*.

In any case, either species is well worth growing.

Metallic Mercury as a Simple Remedy for Borer

By DR. ARTHUR D. HOUGHTON

Certain cacti such as *Sclerocactus polyancistrus* become almost extinct for years at a time. This was a great puzzle to cactus collectors until it was discovered that almost every plant brought in, contained a boring insect. Rot follows in the track of the borer, especially when the plant is removed from its arid habitat and subjected to garden conditions.

It was my custom in the past to examine a plant very carefully for borer and, when found, to cut and cut till there was very little left, in order to get a small piece for propagation by grafting. Many plants, especially from theMarathon region of Texas, had to be cut to pieces without being able to save enough to make a graft.

The new method which I have discovered makes all the cutting unnecessary.

Most all borers enter the plant near the root and form long and large tortuous channels up to near the growing apex of the plant. At the extreme top of the burrow will be found either the borer itself or a bunch of about 100 eggs. The hole near the root is found by probing around with a lead pencil; enlarge this entrance hole slightly and insert an ordinary glass medicine dropper, which has been previously connected by a rubber tube with a small glass funnel. Pour metallic mercury (quicksilver) into the funnel, and shake the plant until all the borer channels are filled with mercury. Soon the insect or eggs will float out of the hole; then turn cactus over and recover the mercury, which of course, can be used again and again.

There is usually some rot in the plant and this may be cured by filling, in the same manner as before, with Semesan.

I am experimenting with Hexylresorcinol, which is sold under the trade name of S. T. 37, as this may be found more useful than Semesan. Its name furnishes the reason, for S. T. means surface tension, and 37 means thirty-seven dynes. Having so low a surface tension, this substance spreads itself into every nook and cranny; it also has high bactericidal (bacteria killing) power. Trusting this method may be of value to workers in wider fields than our limited one, am glad to add this little method to the world's technique.

Strombocactus schmiedickeanus Boed

This species of recent discovery was described by Boedecker in 1928 as *Echinocactus schmiedickeanus,* being placed by him next to *E. disciformis;* according to the Britton & Rose nomenclature it will therefore have to be called *Strombocactus schmiedickeanus.* Following Berger's description, the plant is more or less obovate to cuneate, single or several-headed, 5 to 6 cm. long, 2 to 3 cm. in diameter, bearing 4-angled tubercles 5 mm. wide, 7 mm. long, dull green. The areoles at the tips of the tubercles are rounded, at first white-woolly, later becoming naked. The spines number from 1 to 4, usually 3, up to 2.5 cm. in length; they are erect, twisted in the shape of a ram's horn. Their upper surface is flattened or channeled. They are soft, not pungent, grey with black tips. The flowers are borne about 18 mm. in diameter. Tube light olive green, outer segments lanceolate, acute, pale dull pink with a brownish mid-stripe at the back, inner segments to 15 mm. long, 2 mm. wide, soft pink with violet mid-stripe, anthers pink, stigma-lobes whitish.

This species occurs in arid places near Miquihuana, Tamaulipas, Mexico. It is probably not yet in cultivation with us.

JAMES WEST.

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SECRETARY'S NOTES

PLACE OF AUGUST MEETING. The next regular meeting of the Society will be held at the home of Mrs. Helen McCabe, 6721 Imperial Avenue, San Diego, on Sunday, August 31. Plan to take your lunch and arrive by 12:30. Mrs. McCabe will furnish coffee, cream and sugar. Guests will take their own cups and spoons. The business meeting will begin at 1:30.

Mrs. McCabe gives the following directions for reaching her home from the center of San Diego: "Go up C Street to 16th Street. Turn right on 16th to Imperial (formerly M Street). Left on Imperial." Her home is five miles from the city. Since the following day is a holiday, this would make an ideal week-end trip. PLEASE MARK THE DATE. NO FURTHER NOTICE WILL BE SENT.

An enjoyable July meeting was held at the home of Mr. Henry E. Jaeger, Sierra Madre. The weather was delightful for such a gathering. A representative number were present, among whom we noted several new faces and several of our old friends who have not been present for some time.

The meeting was called to order in the out-of-doors living room under the live oaks. President Willis presided and presented the speaker, Dr. Jacolyn Manning. Dr. Manning spoke on "The Conservation of Water in the Southwest and the Desert Garden." In her talk were several points worthy of our consideration. A further report of her talk will be found elsewhere in this issue.

Slowly but surely we are moving toward our goal of a thousand members. The Executive Board at its last meeting pased upon thirty-three application for membership. England, Australia, Iowa, New York, Massachusetts, Texas, Indiana, Minnesota, New Jersey and California were represented. Our wonderful growth is the result of members telling their friends of the Society and the Journal. We trust that you are assisting. The greater the membership, the less the cost per copy of the magazine. That saving can be used to enlarge the Journal. Is your Public Library a subscriber to the Journal?

Interesting items reach our desk. The following from Mr. G. H. Shiner, our Laredo, Texas, member, is an example. Mr. Shiner holds the judgment of a trashman in high esteem. But let him tell the story. "Friends told me that they had seen a very nice cactus plant at a shack in the Mexican part of Laredo—streets nameless and houses numberless. After several expeditions, I located it—a five-sided *Pachycereus marginatus,* in perfect condition and over six feet tall.

"Upon investigation it developed that the owner of the plant had been the trashman many years ago for Mrs. Anna B. Nichols, cactus nurserywoman and Mexican importer, and for Miss Emma Cummings, who succeeded her in conducting Arcadia Gardens. He saved the plant, then very small, from the trash and took it home. In the same load he also found a catalog and price list of 'Cactuses and Other Texan and Mexican Plants' issued by Mrs. Nichols. On the cover is printed 'Highest Award, World's Fair, Chicago, 1893.'

"I purchased the plant for two dollars, two bougainvilleas, a variegated Caladium and a rubber plant, all of which descending at once made the trashman the happiest poor Mexican in Laredo.

"Some of the prices quoted in the catalog are as follows:

Astroyphtum myriostigma.....75c to $3.00
Cephalocereus senilis....50c to 75c for 3 to 5 in. up to $10.00 to $20.00 for 20 to 30 in.
Astrophytum seeds.....30c per packet
Other cacti seeds.....15c to 25c per packet

"Needless to say, I am very proud of both catalog and plant."

A new member from England desires to correspond with someone for mutual information on the subject of cacti and succulents. This member is an amateur and has been collecting for thirty years. If any member is interested, he may communicate with the secretary.

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Mail subscriptions to Boyd L. Sloane, 1421 Dominion Ave., Pasadena, Calif. Subscription price $3 per year with or without membership; foreign $3.50.

I enclose herewith $ for one year's dues in the Society and one year's subscription to the *Journal of the Cactus and Succulent Society of America.*

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